

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Cancel claims 1-9.

Add new claims 10-25 as follows:

LISTING OF CLAIMS:

10. (New) An interface for reducing mechanical vibrations, which has a base connection element, a load connection element and at least one support element,

a) wherein at least a first energy converter system extends between at least one engagement point located on the base connection element and at least one engagement point located on the load connection element;

b) wherein at least one second energy converter system extends between at least one engagement point located on the support element and at least one engagement point located on the load connection element;

c) wherein the base connection element is connected to the at least one support element by means of at least one elastic pretensioning device in such a way that the elastic pretensioning device can exert a preload on the first energy converter system and on the second energy converter system;

c1) wherein the pretensioning device is embodied as an elastic pipe which surrounds the actuator systems; and

d) wherein the load connection element has a part located in an intermediate space between the base connection element and the support element, and a part located outside the intermediate space between the base connection element and the support element.

11. (New) The interface as claimed in claim 10, characterized in that the energy converter systems have at least one of the following elements:

- a piezoactuator,
- a shape memory alloy actuator,
- an electrorheological or magnetorheological fluid actuator or fluid damper, or

- an electrostrictive or magnetostrictive actuator.

12. (New) The interface as claimed in claim 10, characterized in that the base connection element and the load connection element have standardized connection geometries.

13. (New) The interface as claimed in claim 10, characterized in that at least one sensor system for determining travel and/or velocity and/or acceleration and/or force is connected to the load connection element.

14. (New) The interface as claimed in claim 10, characterized in that at least one energy converter system is embodied as an actuator system, and
in that at least one actuator system or a part of at least one actuator system can simultaneously be used as an energy converter which can convert mechanical energy into electrical energy.

15. (New) An arrangement for reducing mechanical vibrations, characterized by

- an interface as claimed in claim 10,
- at least one system which acts as a movement sensor and/or acceleration sensor and/or velocity sensor and/or force sensor, and
- an electronic circuit which generates, from a signal of the system which acts as a movement sensor and/or acceleration sensor and/or velocity sensor and/or force sensor, a target function for actuating the energy converter systems of the interface.

16. (New) An arrangement for reducing mechanical vibrations, characterized by

- an interface as claimed in claim 15, and
- an electronic circuit for passive or semiactive vibration reduction.

17. (New) An arrangement for reducing mechanical vibrations, characterized in that a plurality of interfaces as claimed in claim 10 are connected in series in cascades in such a way that in each case the base connection element of the following interface is connected to the load connection element of the preceding interface.

18. (New) An interface for reducing mechanical vibrations, comprising:
 - a base connection element having a first part and a second part;
 - a load connection element separated from the base connection element by an intermediate space, said first part being located in said intermediate space and said second part being located outside of said intermediate space;
 - a support element;
 - an actuator system including
 - a first energy converter system extending between a first engagement point located on the base connection element and a second engagement point located on the load connection element, and
 - a second energy converter system extending between a third engagement point located on the support element and a fourth engagement point located on the load connection element; and
 - an elastic pretensioning device connecting the base connection element to the support element in such a way that the elastic pretensioning device exerts a preload on the first energy converter system and on the second energy converter system, the pretensioning device being embodied as an elastic pipe which surrounds at least a part of said actuator system.
19. (New) An interface as recited in claim 18, characterized in that said first and second energy converter systems include at least one active element selected from the group consisting of
 - a piezoactuator,
 - a shape memory alloy actuator,
 - an electrorheological fluid actuator,
 - a magnetorheological fluid actuator,
 - a fluid damper,
 - an electrostrictive actuator, and
 - a magnetostrictive actuator.
20. (New) An interface as recited in claim 18, characterized in that the base connection element and the load connection element have standardized connection geometries.

21. (New) An interface as recited in claim 18, characterized in that at least one sensor system adapted to determine travel and/or velocity and/or acceleration and/or force is connected to the load connection element.
22. (New) An interface as recited in claim 18, characterized in that at least one of said first and second energy converter systems can convert mechanical energy into electrical energy.
23. (New) An arrangement for reducing mechanical vibrations, comprising:
an interface as recited in claim 18,
at least one system which acts as a movement sensor and/or acceleration sensor and/or velocity sensor and/or force sensor, and
an electronic circuit which generates, from a signal of said one system, a target function for actuating the energy converter systems of the interface.
24. (New) An arrangement for reducing mechanical vibrations, comprising:
- an interface as recited in claim 23,
- wherein said electronic circuit cooperates with said energy conversion systems to accomplish passive or semiactive vibration reduction.
25. An arrangement for reducing mechanical vibrations, characterized in that a plurality of interfaces as recited in claim 18 are connected in series in cascades in such a way that in each case the base connection element of the following interface is connected to the load connection element of the preceding interface.